

What is Claimed is:

1. A method of screening for a neurological disorder in a human subject comprising the steps of:
 - 5 (a) obtaining a biological sample from the subject;
 - (b) contacting the sample with a polynucleotide probe complementary to an IGFBP-2 mRNA;
 - (c) measuring the amount of probe bound to the mRNA;
 - (d) comparing the amount in step (c) with IGFBP-2 mRNA in human

10 samples obtained from a statistically significant population lacking the neurological disorder,
wherein higher IGFBP-2 levels in the subject indicates a predisposition to the neurological disorder.
- 15 2. The method of claim 1, wherein the neurological disorder is selected from the group consisting of depression, anxiety, panic disorder, bipolar disorder, insomnia, obsessive compulsive disorder, dysthymic disorder and schizophrenia.
- 20 3. The method of claim 1, wherein the biological sample is obtained as a blood sample, a cerebrospinal fluid (CSF) sample, a saliva sample, a skin biopsy or a buccal biopsy.
4. The method of claim 1, wherein the biological sample is selected from the group consisting of blood plasma, serum, erythrocytes, leukocytes, platelets, lymphocytes, macrophages, fibroblast cells, mast cells, fat cells and epithelial cells.
- 25 5. The method of claim 1, wherein the probe comprises a nucleotide sequence which hybridizes under high stringency hybridization conditions with a polynucleotide comprising the nucleotide sequence of SEQ ID NO:8.

6. A method for treating a neurological disorder in a human in need thereof the method comprising administering to the human a therapeutically effective amount of a composition which dissociates a protein complex comprising an Insulin-like growth factor (IGF) and an Insulin-like growth factor binding protein (IGFBP).
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7. The method of claim 6, wherein the protein complex is further defined as a dimeric complex comprising IGF and IGFBP.
- 10 8. The method of claim 7, wherein the protein complex further comprises an acid labile subunit (ALS), wherein the ratio of IGF to IGFBP to ALS is 1:1:1.
9. The method of claim 6, wherein the composition crosses the blood brain barrier
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10. The method of claim 6, wherein the composition is a small molecule.
11. The method of claim 6, wherein the composition is a peptide.
- 20 12. The method of claim 6, wherein the composition is a peptide mimetic.
13. The method of claim 6, wherein the composition is an antisense molecule which inhibits expression of an IGBFP.
- 25 14. The method of claim 6, wherein the neurological disorder is selected from the group consisting of depression, anxiety, panic disorder, bi-polar disorder, insomnia, obsessive compulsive disorder, dysthymic disorder and schizophrenia.
- 30 15. The method of claim 6, wherein the protein complex is comprised in the central nervous system (CNS).
16. The method of claim 15, wherein the CNS is further defined as the brain.

17. The method of claim 16, wherein the brain is further defined as a region of the brain selected from the group consisting of the dentate gyrus, the hippocampus; the subventricular zone and the cortex.
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18. The method of claim 6, wherein the IGFBP is IGFBP-2 or IGFBP-5.
19. The method of claim 6, wherein the IGF is IGF-I.
- 10 20. The method of claim 6, wherein the IGF is IGF-II.
21. An antisense RNA molecule which inhibits the expression of an IGFBP.
- 15 22. The RNA molecule of claim 21, wherein the molecule is antisense to a polynucleotide having a nucleotide sequence of SEQ ID NO:8 or a degenerate variant thereof.
- 20 23. A pharmaceutical composition which dissociates a protein complex comprising an Insulin-like growth factor (IGF) and an Insulin-like growth factor binding protein (IGFBP).
24. The composition of claim 23, wherein the protein complex is further defined as a dimeric complex comprising IGF and IGFBP.
25 25. The composition of claim 24, wherein the protein complex further comprises an acid labile subunit (ALS), wherein the ratio of IGF to IGFBP to ALS is 1:1:1.
26. The composition of claim 24, wherein the composition is a small molecule.
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27. The composition of claim 24, wherein the composition is a peptide.

28. A method of screening for compounds which dissociate an IGF/IGFBP/ALS trimer complex, the method comprising:

5 (a) providing a sample comprising an IGF polypeptide, an IGFBP polypeptide and an ALS polypeptide, wherein the IGFBP is labeled with a radioactive isotope and the IGF is labeled with a scintillant,

(b) contacting the sample with a test compound; and

(c) detecting light emission of the scintillant,

10 wherein a reduction in light emission, relative to a sample in the absence of the test compound, indicates a test compound which dissociates the complex.

15 29. A method of screening for compounds which dissociate an IGF/IGFBP/ALS trimer complex, the method comprising:

(a) providing a sample comprising an IGF polypeptide, an IGFBP polypeptide and an ALS polypeptide, wherein the IGFBP is labeled with a radioactive isotope;

(b) contacting the sample with a test compound,

(c) immunoprecipitating the sample with an anti-IGF antibody; and

(d) measuring the radioactivity of the precipitate,

20 wherein a reduction in radioactivity, relative to a sample in the absence of the test compound, indicates a test compound which dissociates the complex.

30. 30. A method of screening for compounds which dissociate an IGF/IGFBP/ALS trimer complex, the method comprising:

25 (a) providing a sample comprising an IGF polypeptide, an IGFBP polypeptide and an ALS polypeptide, wherein the IGFBP is labeled with a fluorescence donor molecule and the IGF is labeled with a fluorescence acceptor molecule,

(b) contacting the sample with a test compound,

(c) exciting the sample at the excitation wavelength of the donor molecule; and

30 (d) detecting fluorescence at the emission wavelength of the acceptor molecule,

wherein a fluorescence signal, relative to a sample in the absence of the test compound, indicates a test compound which dissociates the complex.

31. A method of screening for compounds which dissociate an IGF/IGFBP/ALS trimer complex, the method comprising:

5 (a) providing a sample comprising an IGF polypeptide, an IGFBP polypeptide and an ALS polypeptide, wherein the IGF is labeled with a fluorophore,

10 (b) contacting the sample with a test compound,

(c) exciting the fluorophore at its excitation wavelength; and

(d) detecting the fluorescence polarization of fluorophore,

wherein a decrease in polarization, relative to a sample in the absence of the test compound, indicates a test compound which dissociates the complex.